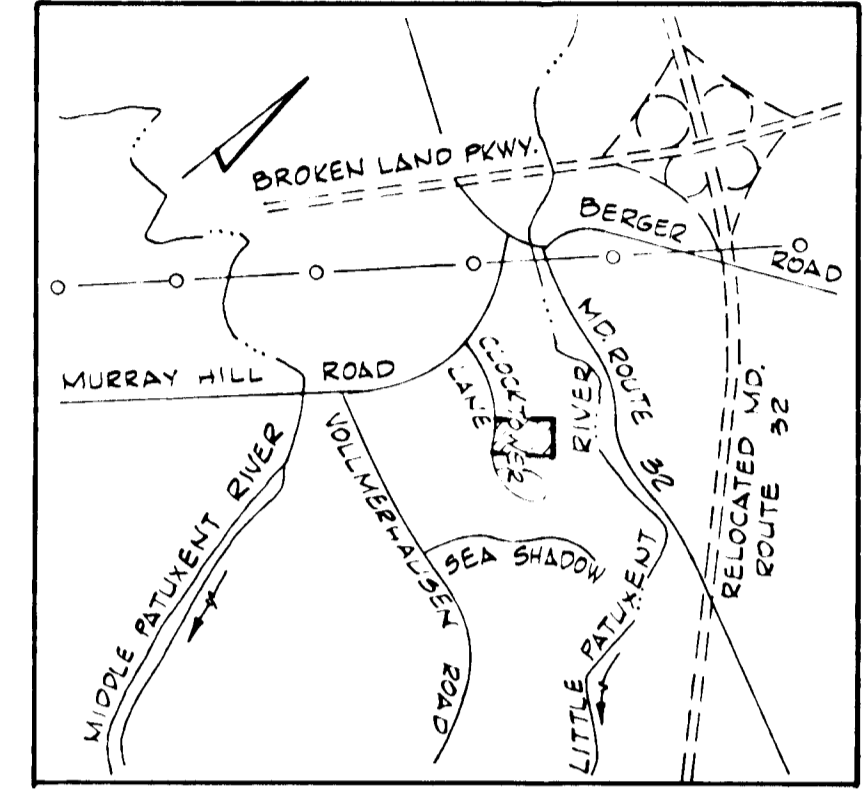


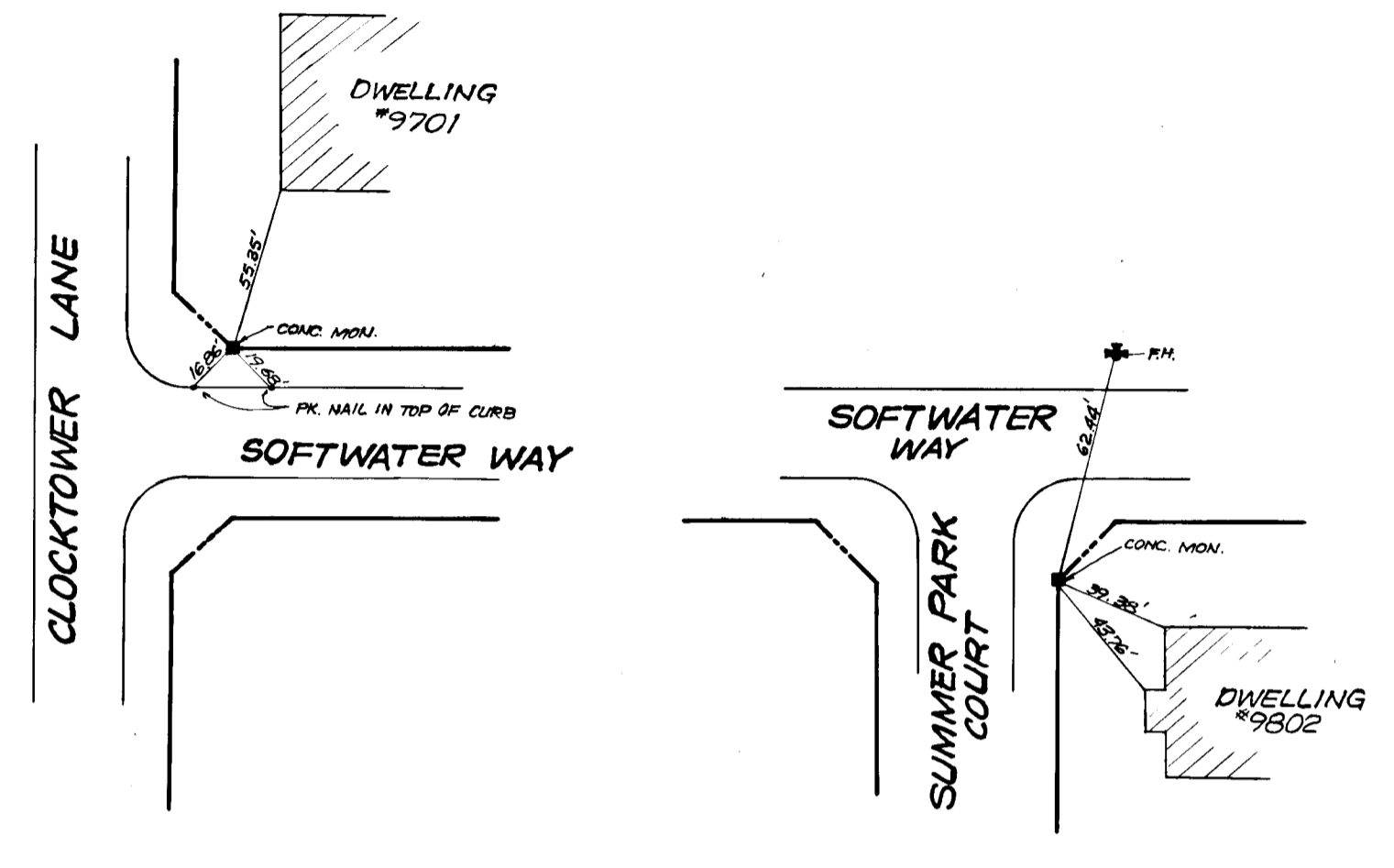
COLUMBIA

HOWARD COUNTY, MARYLAND
 6TH ELECTION DISTRICT

ROAD CONSTRUCTION PLANS VILLAGE OF KINGS CONTRIVANCE SECTION 3 AREA 1 RESUBDIVISION OF A PORTION OF PARCEL "B-1" LOT B-2 TO LOT B-59



VICINITY MAP
 Scale: 1" = 2,000'



MONUMENT RECOVERY SKETCH
 NO SCALE

STORM WATER MANAGEMENT

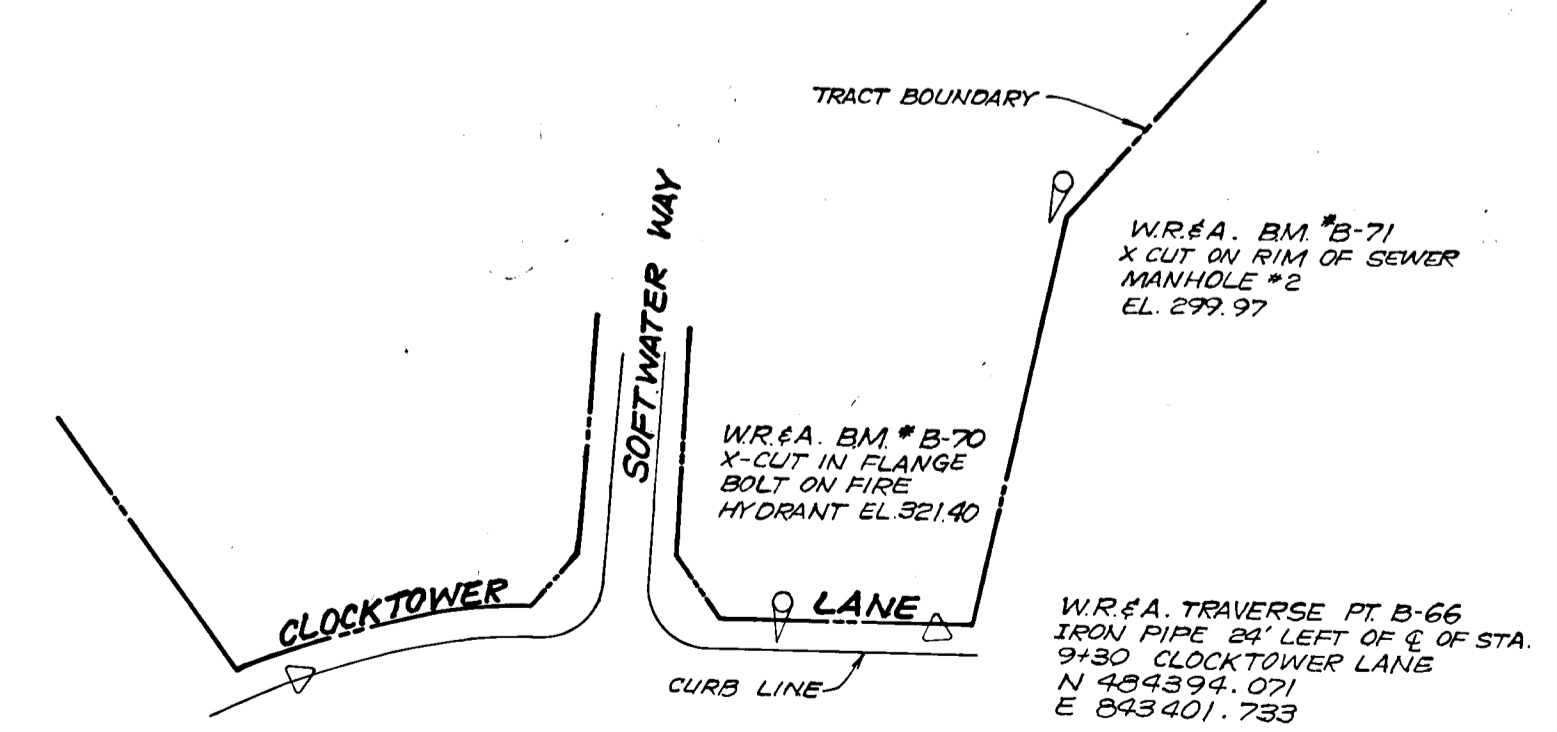
Storm Water Management Ponds #1, #3 and #4 have been designed together to provide the storage required for Parcel "B-1". See hydrologic and hydraulic computations on file in the Department of Public Works under F-79-44C. Also see Road Construction Drawings for the Village of Kings Contrivance Section 3 Area 1. Pond #1 is shown on Sheet 25 of 27, File F-78-203 C. Ponds #3 and #4 are shown on sheets 35 and 36 of 37, File F-79-44C respectively.

GENERAL NOTES

- All work shall be done in accordance with Howard County Standards Specifications and Details for Construction.
- All utility companies must be notified 24 hours in advance of any construction.
- Secondary residential streets are designed for 30 mph traffic speed in accordance with AASHTO standards.
- All inlets shall be Howard County Standard unless otherwise shown. All "A" inlets shall be depressed.
- Storm drain trenches within road rights-of-ways shall be backfilled and compacted in accordance with Howard County Road Code.
- Any damage to public rights-of-ways or paving will be corrected at the developer's expense.
- Approximate location of existing utilities are shown. The contractor shall take all necessary precautions to protect existing utilities and to maintain uninterrupted service. Any damage incurred due to contractor's operations shall be repaired immediately at the Contractor's expense.
- The Contractor shall test pit existing utilities where directed by the Engineer a minimum of two weeks in advance of any construction.
- Contractor to notify the Howard County Dept. of Inspections and Permits at least 3 days before starting work shown on these drawings. Telephone 292-2436.

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE - SOFTWATER WAY STA. 0+00 TO STA. 3+50
3	PLAN AND PROFILE - SUMMER PARK COURT
4	DRAINAGE AREA MAP AND STORM DRAIN PROFILES
5	STANDARD DETAILS
6	SEDIMENT CONTROL PLAN AND DETAILS
7	SEDIMENT CONTROL NOTES AND DETAILS

PLAN SUBJECT TO VP82-08



BENCHMARKS AND REFERENCES
 NO SCALE

AS-BUILT APRIL 21, 1983
 AS-BUILT SURVEY CERTIFIED BY
 KENNETH A. McLOD, MD. PROFESSIONAL ENGINEER NO.

Rev. Date	Rev. No.	Revision Description
12/16/81	1	As per DPW & Planning Comments

DEVELOPER HOWARD HOMES BUILDING CO., INC. P.O. BOX 802 COLUMBIA, MARYLAND	 Kenneth A. McLeod KENNETH A. McLOD Registered Engineer No. 1974
--	---

PC.1+41.05 TO INT.2+04.88
 $\Delta = 12^{\circ}11'27''$ T = 32.04'
 R = 500.00' Chd = 63.71'
 L = 63.81' Chd. Brg. = N83°23'05"E

PC.1+41.05 TO INT.2+06.47
 $\Delta = 29^{\circ}41'00''$ T = 79.30'
 R = 800.00' Chd = 153.69'
 L = 155.42' Chd. Brg. = N24°38'18"E

INT.2+06.47 TO PT.3+58.27
 $\Delta = 11^{\circ}48'11''$ T = 31.01'
 R = 500.00' Chd = 61.69'
 L = 61.80' Chd. Brg. = N03°58'45"E

PC.4+59.74 TO INT.5+04.69
 $\Delta = 12^{\circ}52'58''$ T = 22.57'
 R = 200.00' Chd = 44.86'
 L = 44.95' Chd. Brg. = N04°25'56"E

INT.5+04.69 TO PT.6+43.76
 $\Delta = 29^{\circ}58'23''$ T = 72.48'
 R = 200.00' Chd = 136.28'
 L = 139.07' Chd. Brg. = N30°47'27"E

PC.7+05.99 TO PT.7+89.55
 $\Delta = 00^{\circ}00'00''$ T = 15.00'
 R = 15.00' Chd = 21.21'
 L = 25.56' Chd. Brg. = N05°42'38"E

PC.9+46.55 TO PT.9+70.12
 $\Delta = 20^{\circ}00'00''$ T = 15.00'
 R = 15.00' Chd = 21.21'
 L = 23.56' Chd. Brg. = N04°17'22"W

PC.10+02.12 TO PT.10+25.68
 $\Delta = 20^{\circ}00'00''$ T = 15.00'
 R = 15.00' Chd = 21.21'
 L = 23.56' Chd. Brg. = S05°42'38"W

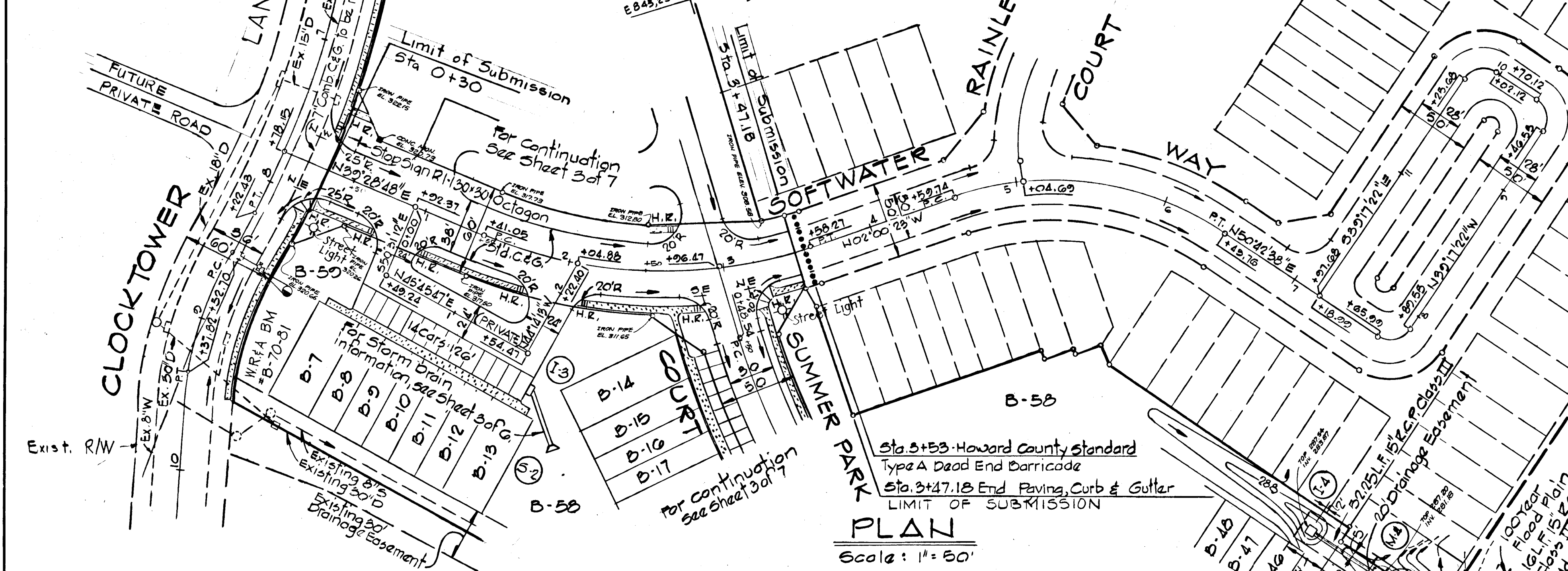
Note: For Clocktower Lane profile and storm drains, see Road Construction Drawings for the Village of Kings Contrivance Section 3 Area 1, F-79-44C, by Whitman, Reardon and Associates

LEGEND

- Publicly Maintained Roadway
- Sidewalk
- Stop Sign 21-130x30"
- H.R. Handicapped Ramp
- 310- Existing Contour
- 310- Proposed Contour

DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING
OFFICE OF PLANNING & ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

12/16/81
 12-21-81



STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	LOCATION
1-4	Standard K Inlet	227.00	225.23	222 Plan and Profile	
M-3	Standard A-1 Manhole	225.00	223.15	222 Plan and Profile	
M-4	Standard B Manhole	227.25	225.43	222 Plan and Profile	
5-3	Standard C Endwall	210.40	208.00	222 Plan and Profile	

Notes:
 1. Standard Type K Inlet, Howard County Drawing S.D. 4.11.
 2. Standard Type A-1 Manhole, Howard County Drawing S.D. 5.01.
 3. Standard Type B Manhole, Howard County Drawing S.D. 5.03.
 4. Standard Type C Endwall, Howard County Drawing S.D. 5.21.
 5. For Storm Drain Profile, see Sheet 4 of 7.

BENCH MARK
 W.R.#A BM * B-70-01 Elev. 321.40
 X-Cut in flange bolt on fire hydrant on Clocktower Lane 5' Rt. Sta. 2+65 between PI * B-65-81 and PI * B-66-81

12/16/81
 Rev. No. 1
 As per DPW & Planning Comments
 Revision Description

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD HOMES BUILDING CO., INC.

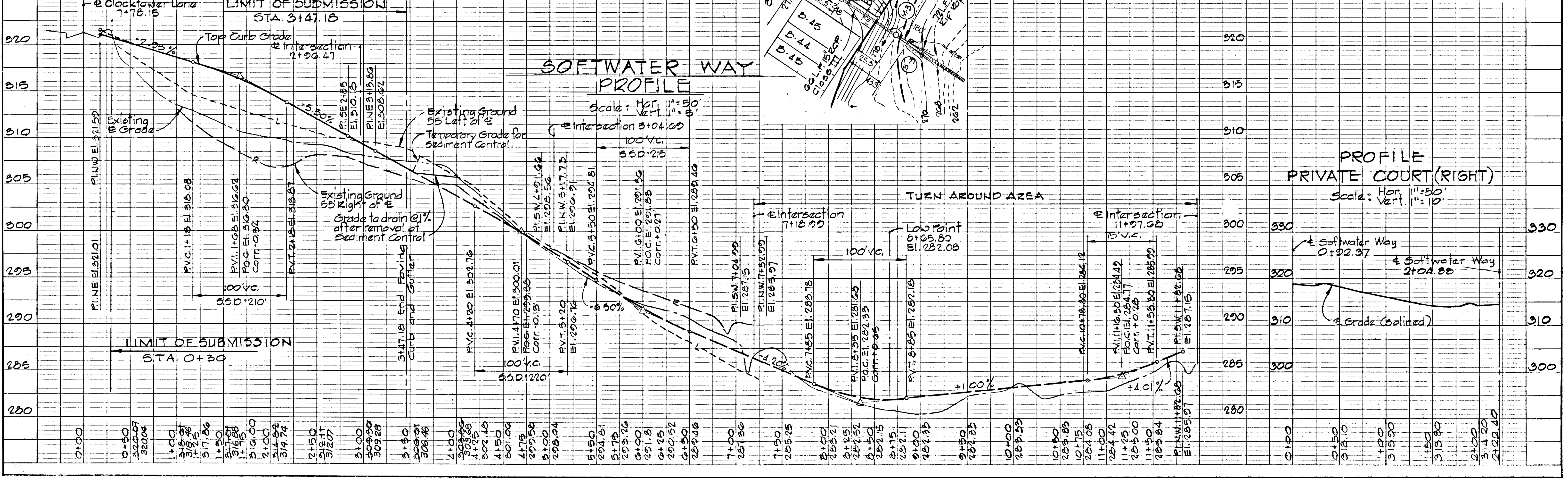
PROJECT AREA
 VILLAGE OF KINGS CONTRIVANCE
 SECTION 3 AREA 1 LOTS B-2 THRU B-59
 A RESUBDIVISION OF A PORTION OF PARCEL B-1

PROJECT TITLE
 PLAN AND PROFILE
 SOFTWATER WAY
 STA. 0+00 TO STA. 9+47.18

SCALE: AS SHOWN DATE

WHITMAN, REARDON & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21218

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1974



ε CURVE DATA

PC. 0+48.54 TO PT. 3+57.11
 Δ = 30° 17' 22" T = 160.63'
 R = 450.00' Chd. = 302.57'
 L = 308.58' Chd. Brg. = N70° 21' 10" E

PC. 4+17.64 TO PT. 4+43.20
 Δ = 90° 00' 00" T = 15.00'
 R = 15.00' Chd. = 21.21'
 L = 23.56' Chd. Brg. = N05° 42' 38" E

PC. 4+93.20 TO PT. 5+16.76
 Δ = 90° 00' 00" T = 15.00'
 R = 15.00' Chd. = 21.21'
 L = 23.56' Chd. Brg. = N84° 17' 22" W

PC. 5+39.76 TO PT. 5+63.33
 Δ = 90° 00' 00" T = 15.00'
 R = 15.00' Chd. = 21.21'
 L = 23.56' Chd. Brg. = S05° 42' 38" W

Rev. Date	Rev. No.	Revision Description
12/16/81	1	As per DPW & Planning Comments

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD HOMES BUILDING CO., INC.

PROJECT AREA
 VILLAGE OF KINGS CONTRIVANCE
 SECTION 3 AREA 1 LOTS B-2 THRU B-59
 A RESUBDIVISION OF A PORTION OF PARCEL "B-1"

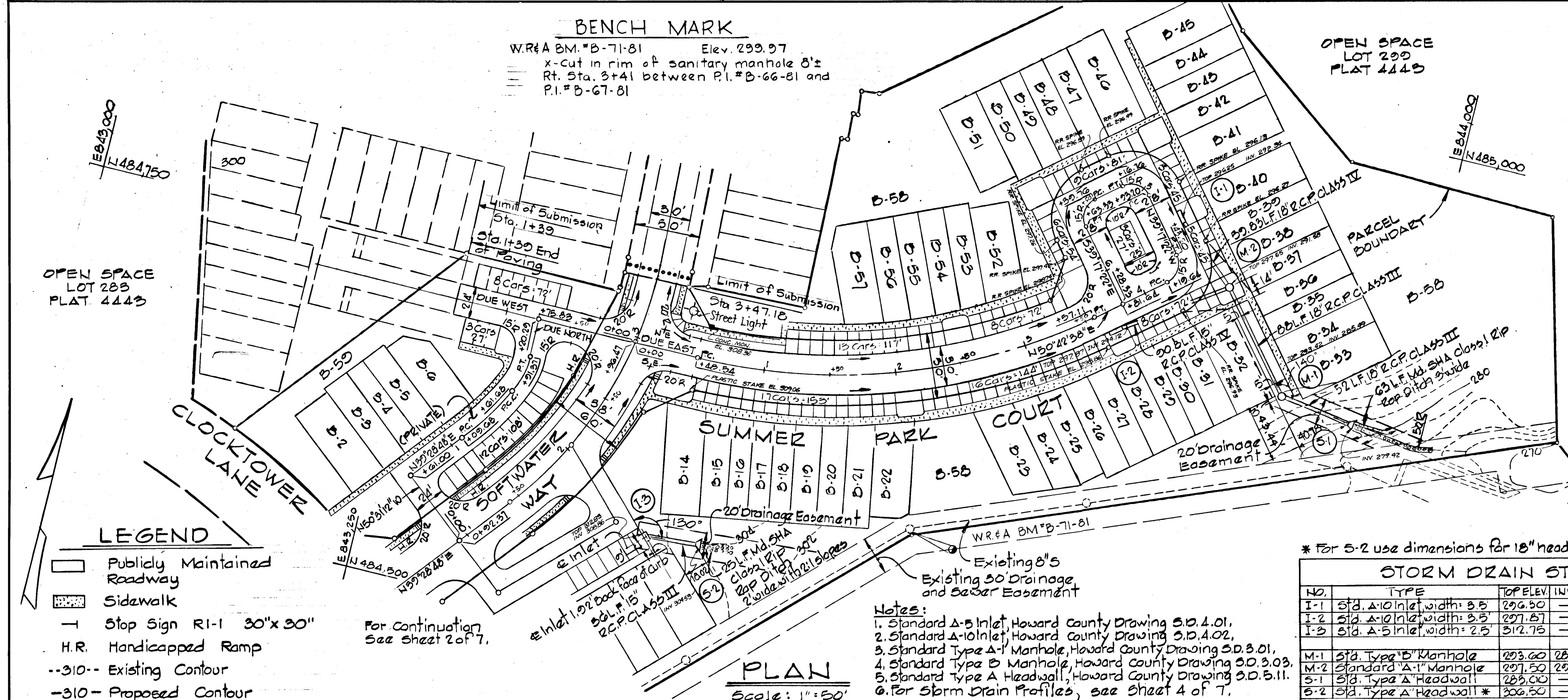
PROJECT TITLE
 PLAN AND PROFILE
 SUMMER PARK COURT

SCALE: AS SHOWN DATE

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21218

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1974

BENCH MARK
 W.R.#A BM.#B-71-81 Elev. 299.97
 x-cut in rim of sanitary manhole 8"±
 Rt. Sta. 3+41 between P.I.#B-66-81 and
 P.I.#B-67-81



*** For 5-2 use dimensions for 18" headwall**

STORM DRAIN STRUCTURE SCHEDULE

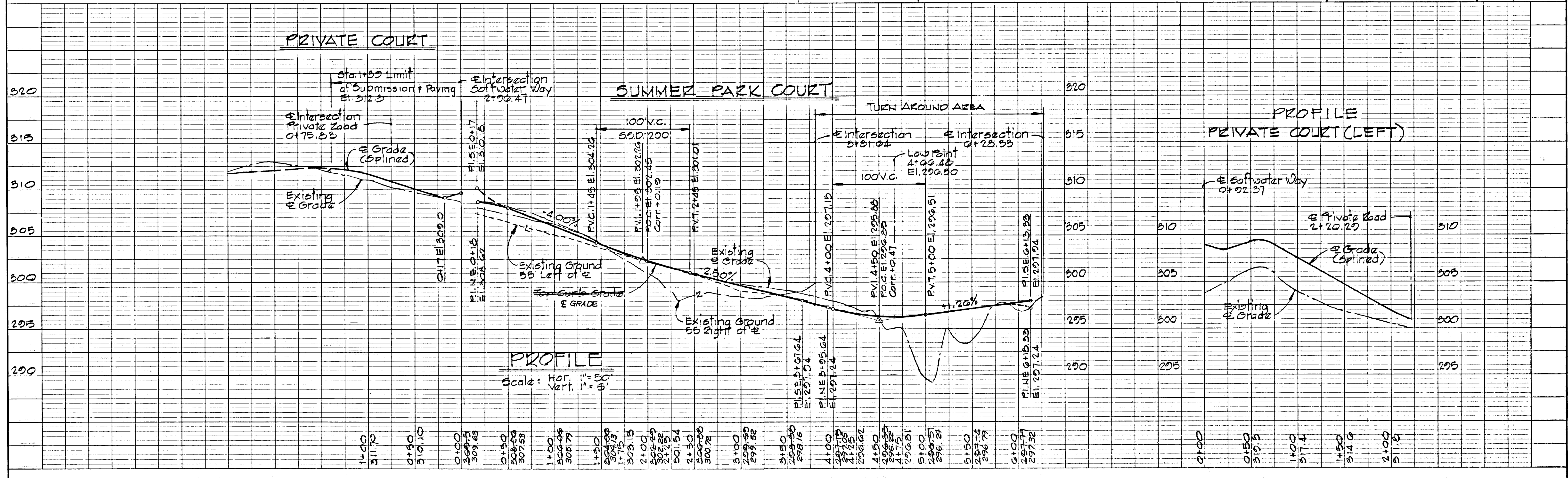
NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	LOCATION
I-1	Std. A-10 Inlet, width: 3.5	296.50		292.08	ε Inlet 16.42' R of Sta. 4+66.25
I-2	Std. A-10 Inlet, width: 3.5	297.67		293.74	ε Inlet 17.42' R of Sta. 3+67.64
I-3	Std. A-5 Inlet, width: 2.5	312.75		308.80	See Plan and Profile
M-1	Std. Type B Manhole	293.60	285.51	285.64	See Plan and Profile
M-2	Standard "A-1" Manhole	297.50	292.36	291.52	See Plan and Profile
S-1	Std. Type A Headwall	283.00		279.43	See Plan and Profile
S-2	Std. Type A Headwall *	306.50		304.00	See Plan and Profile

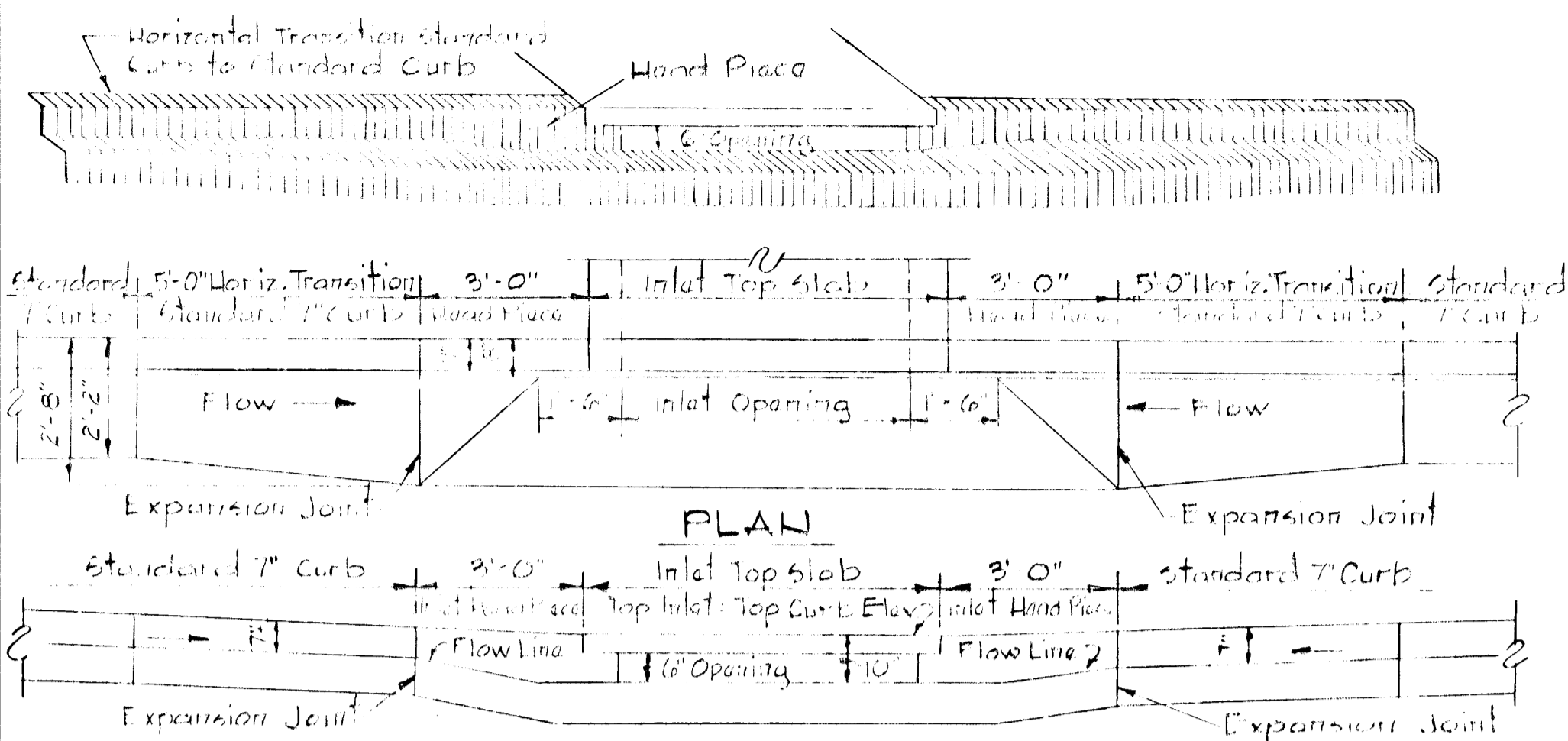
PRIVATE COURT

SUMMER PARK COURT

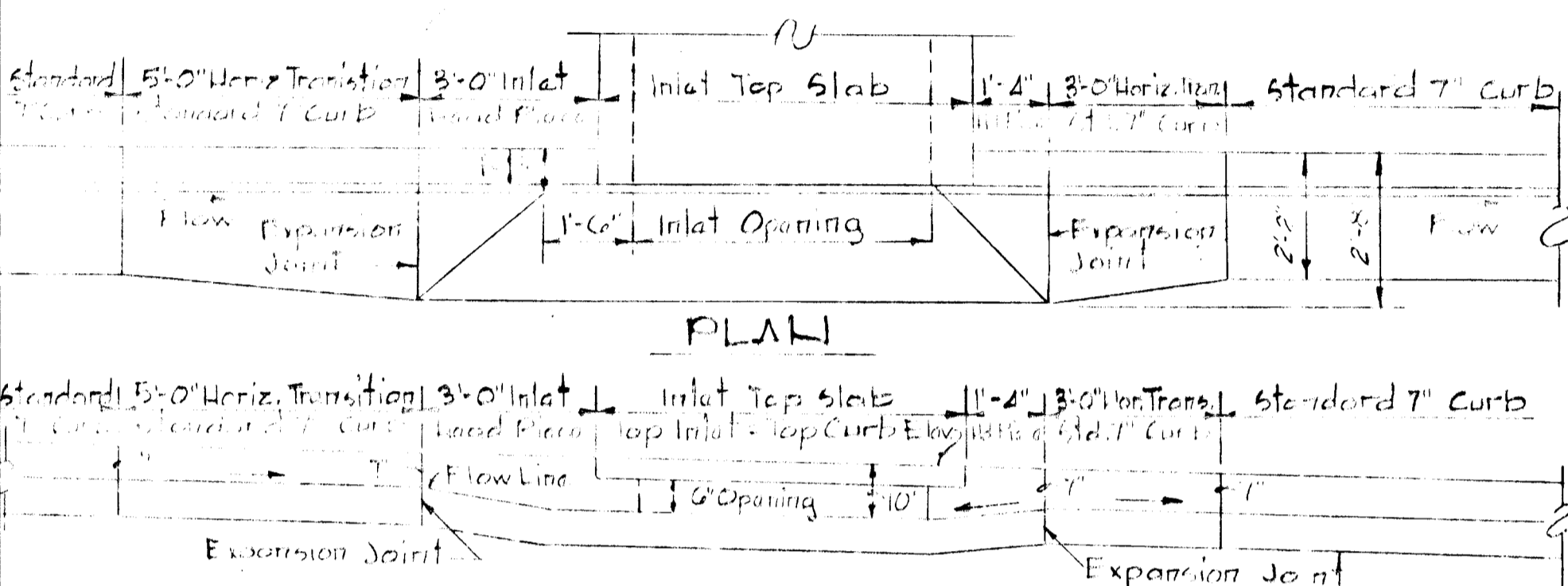
TURN AROUND AREA

PROFILE PRIVATE COURT (LEFT)

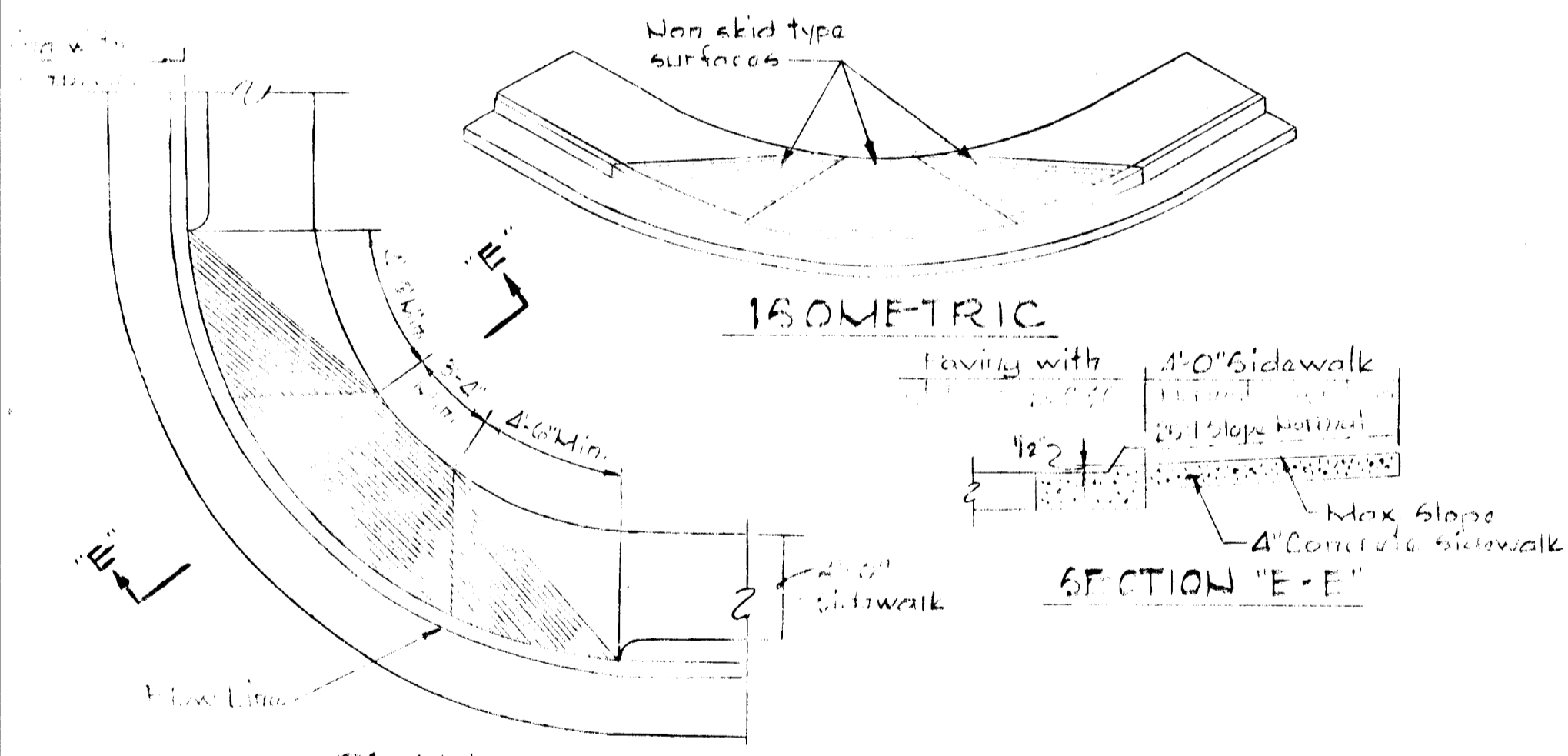




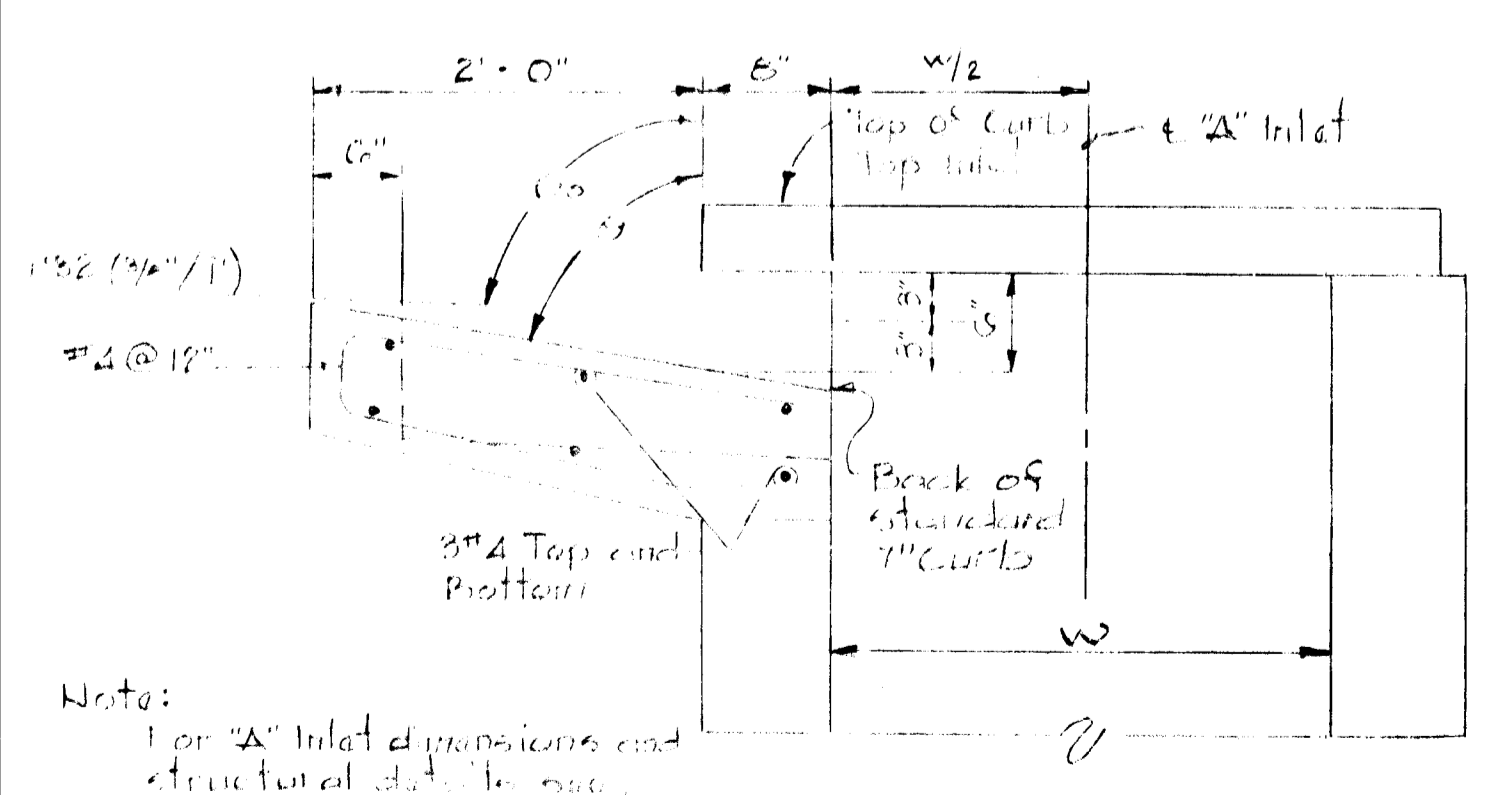
SECTION ALONG FLOW LINE
SLUMPED "A" INLETS - STANDARD CURB



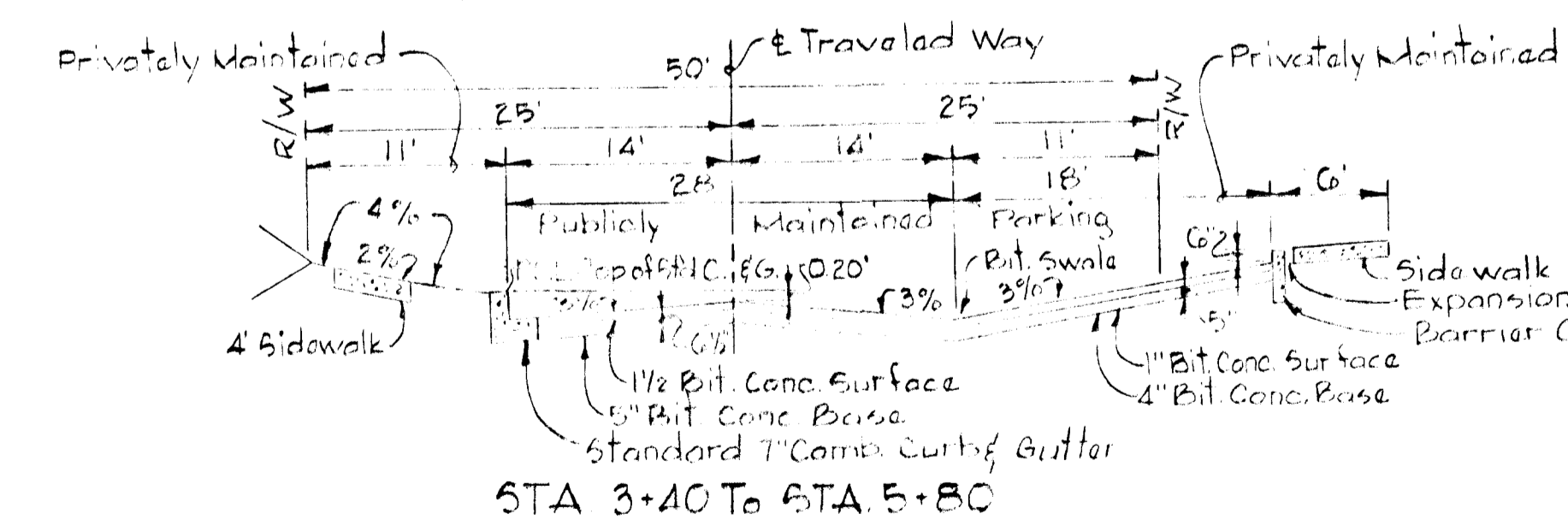
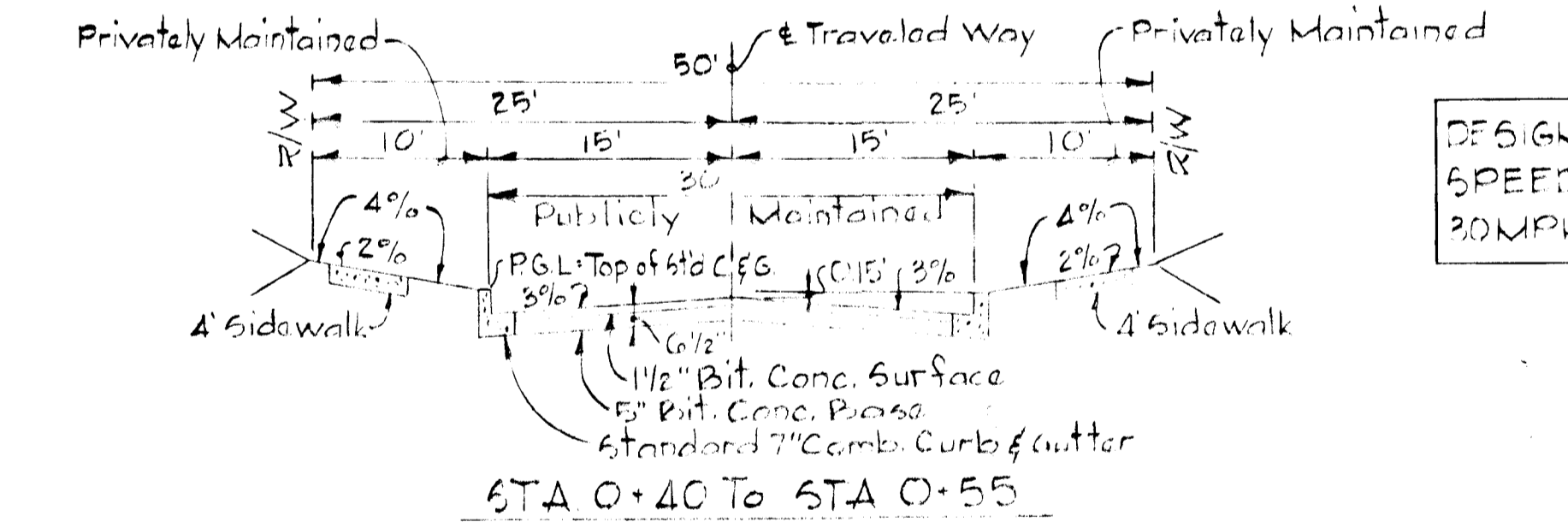
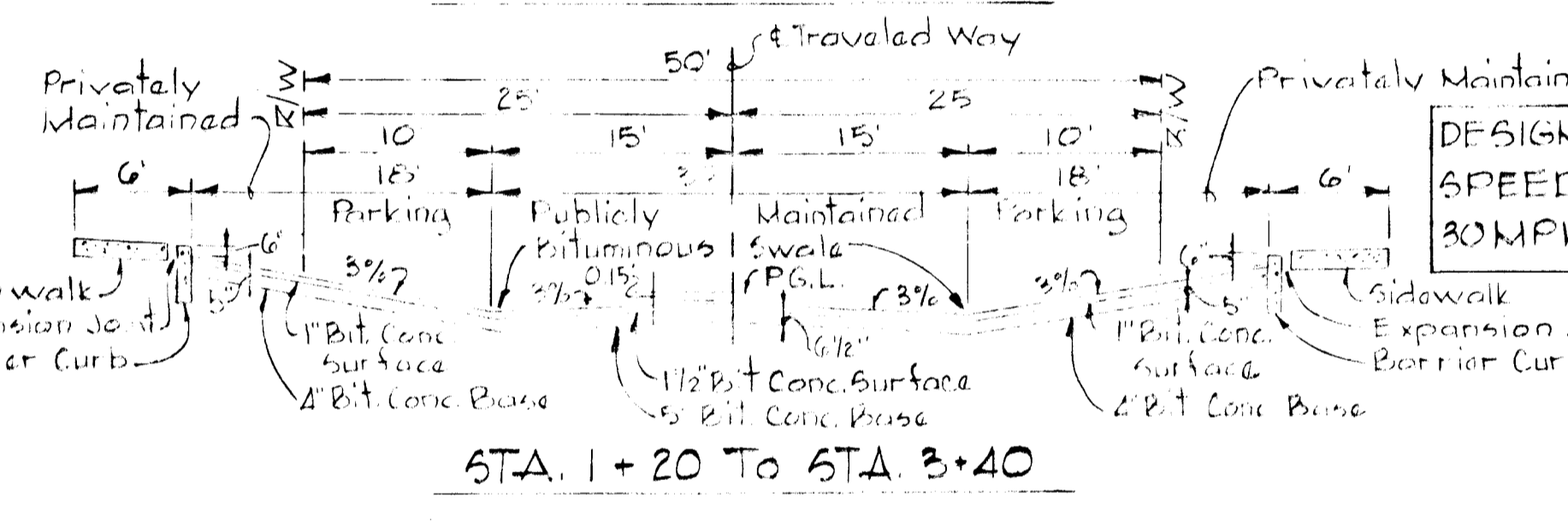
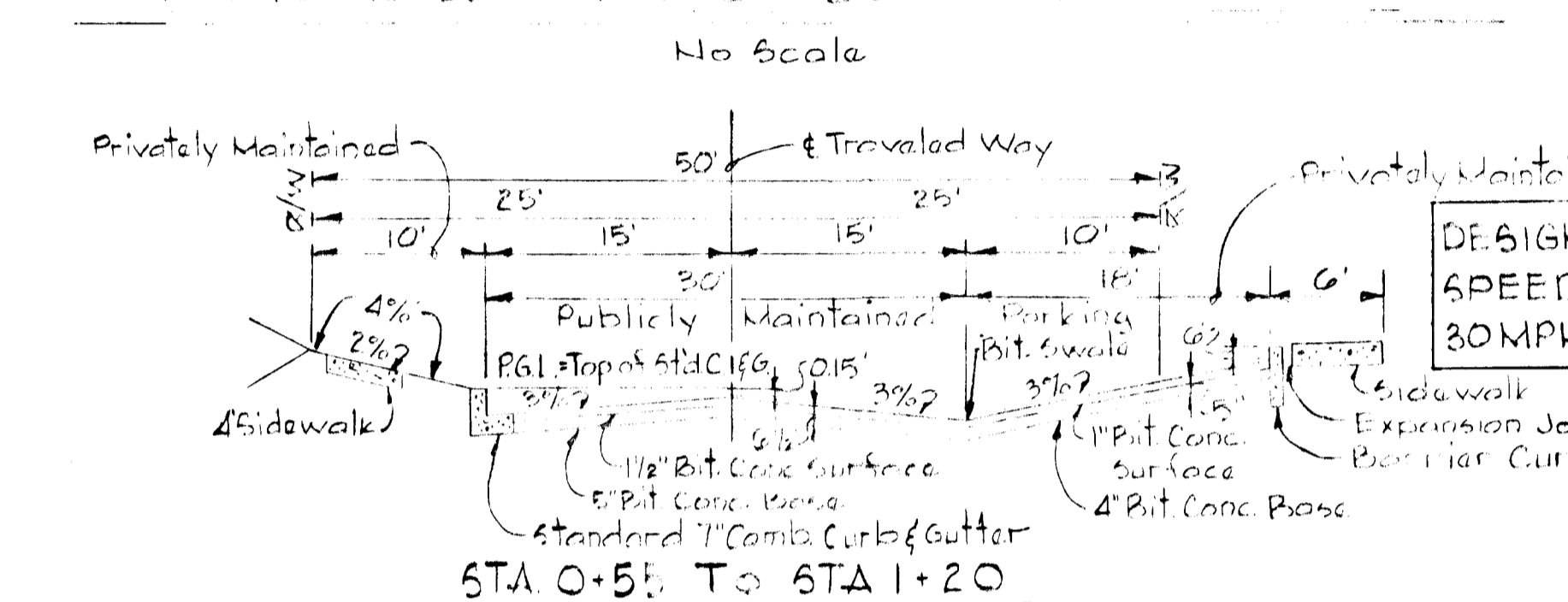
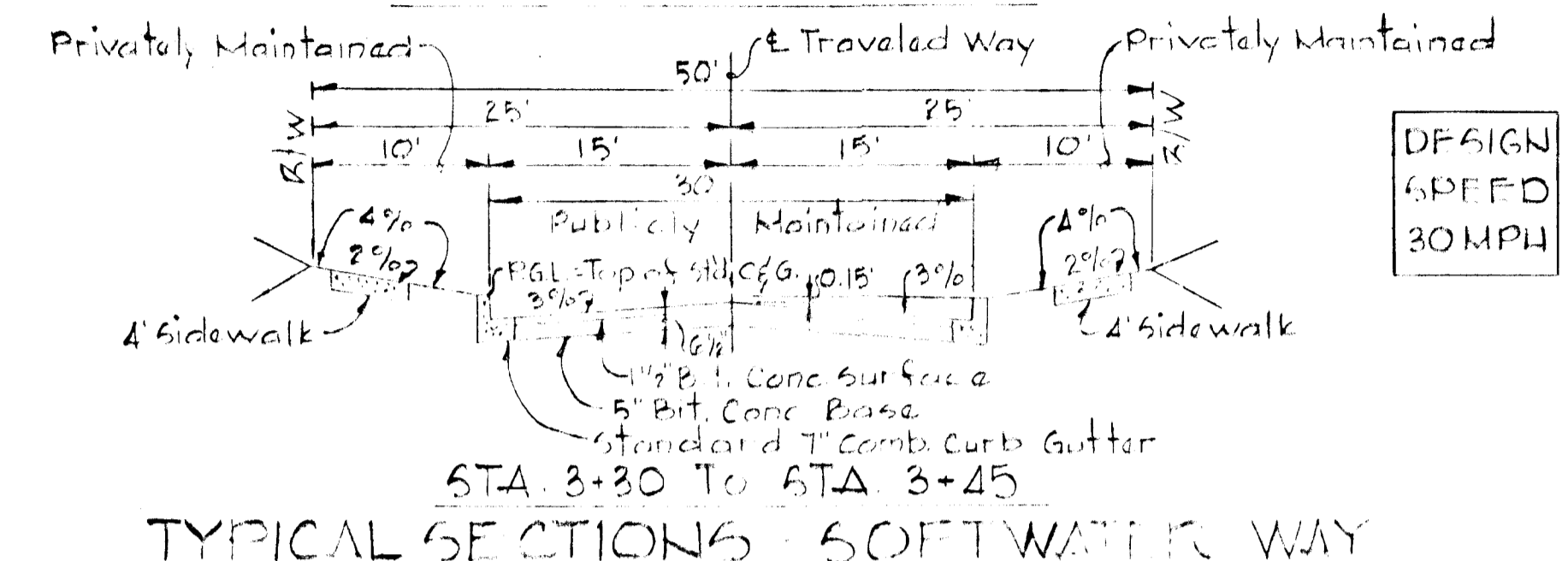
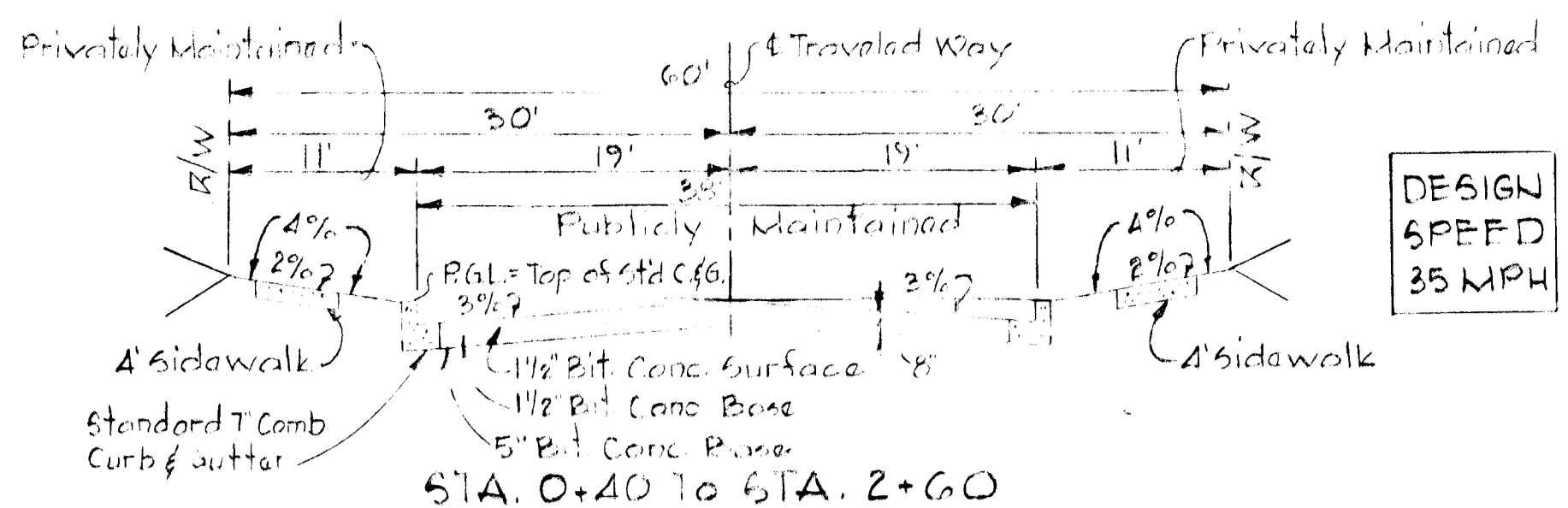
SECTION ALONG FLOW LINE
"A" INLETS - STANDARD CURB



ISOMETRIC
SIDEWALK RAMP

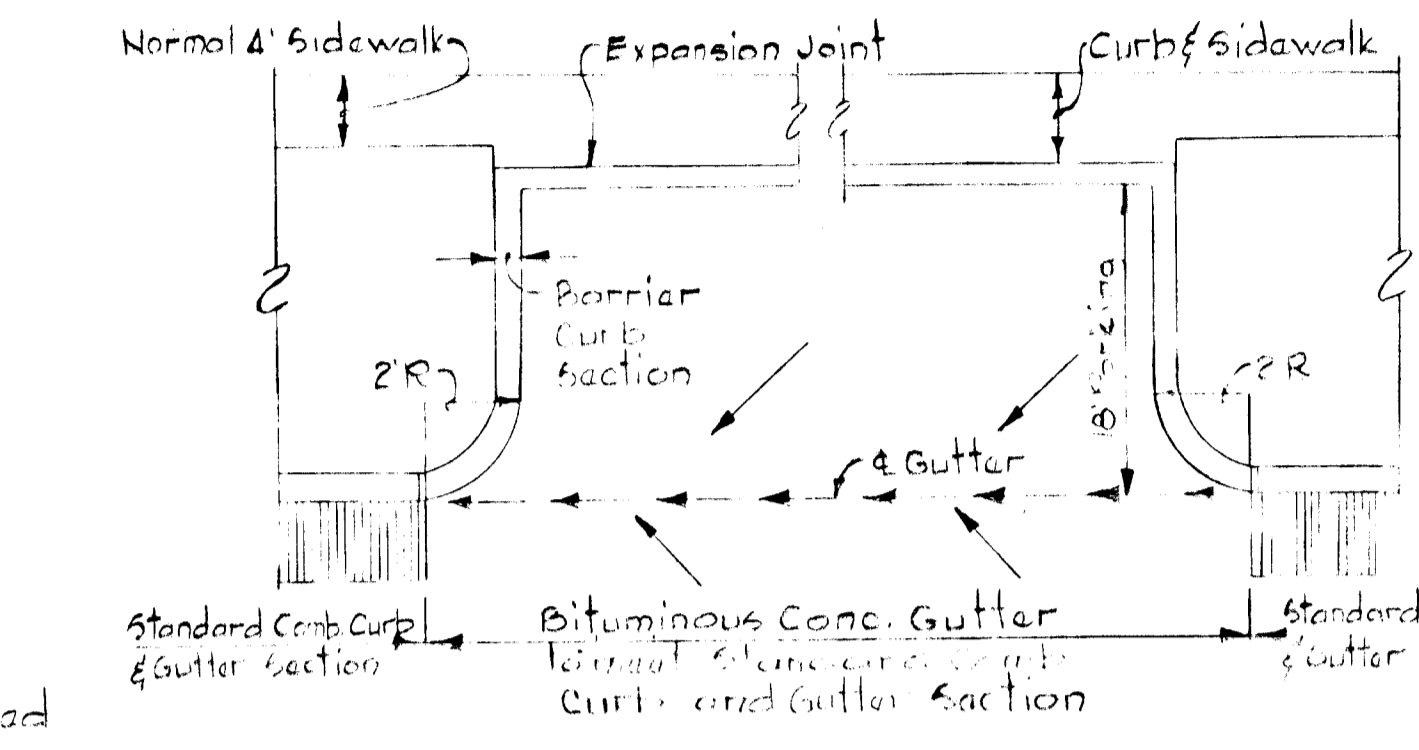


SECTION "A" INLET STANDARD CURB



TYPICAL SECTION 6 - SUMMER PARK COURT

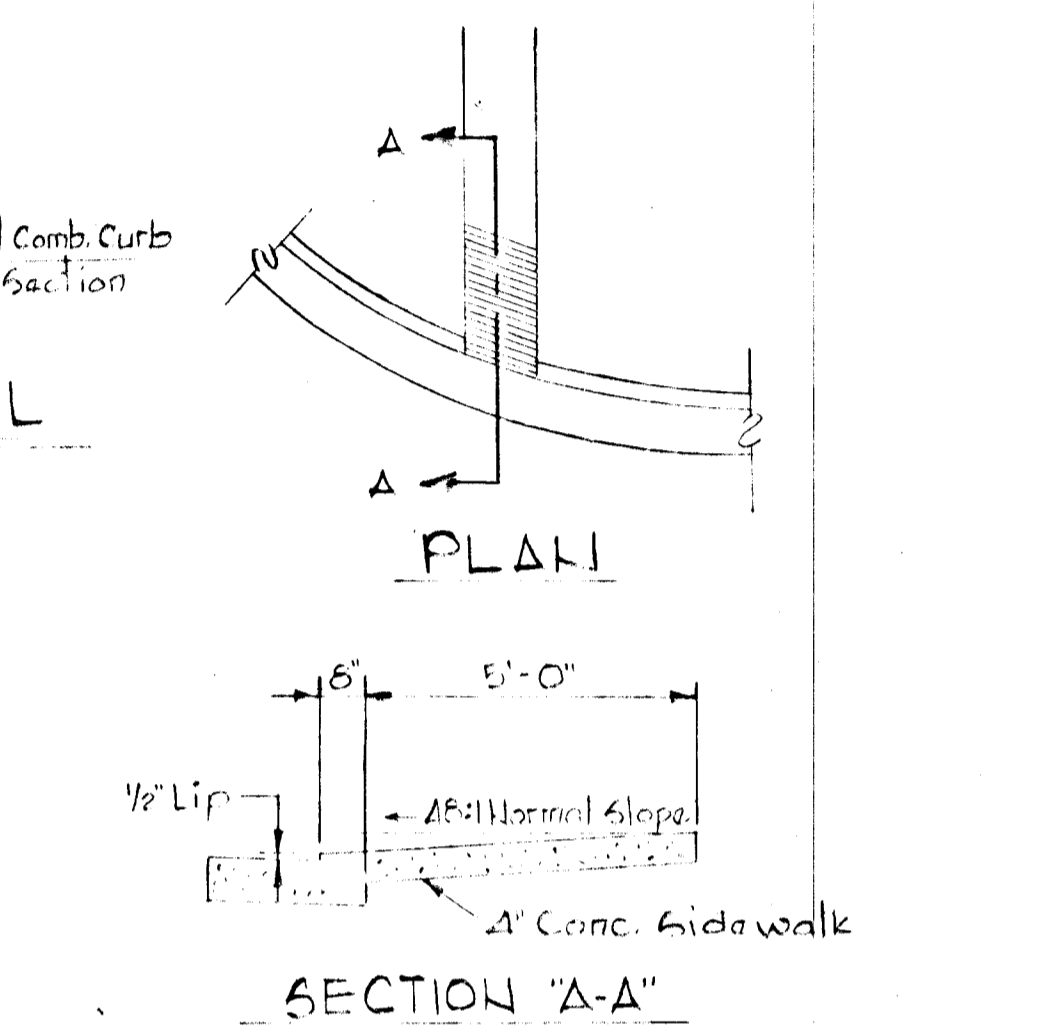
- ROADWAY CONSTRUCTION NOTES:**
1. All materials and construction methods shall be in accordance with the Howard County Standard Specifications and Details for Construction.
 2. Standard 7" Comb and Modified Curb and Gutter shall be in accordance with County Standard Detail R-3.01.
 3. Paving (B) shall be in accordance with County Standard Detail R-2.01 (Paving Section P-1).
 4. Grading (A) shall be in accordance with County Standard Detail R-2.01 (Grading Section P-2).
 5. Paving (B) shall be in accordance with County Standard Detail R-2.01 (Paving Section P-3).
 6. Sidewalks shall be in accordance with County Standard Detail R-2.01 (Paving Section P-3).
 7. Paving will be in accordance with Article 23.01 of the Howard County Standard Specifications.
 8. Tick Coat is required in accordance with the Howard County Standard Specifications.



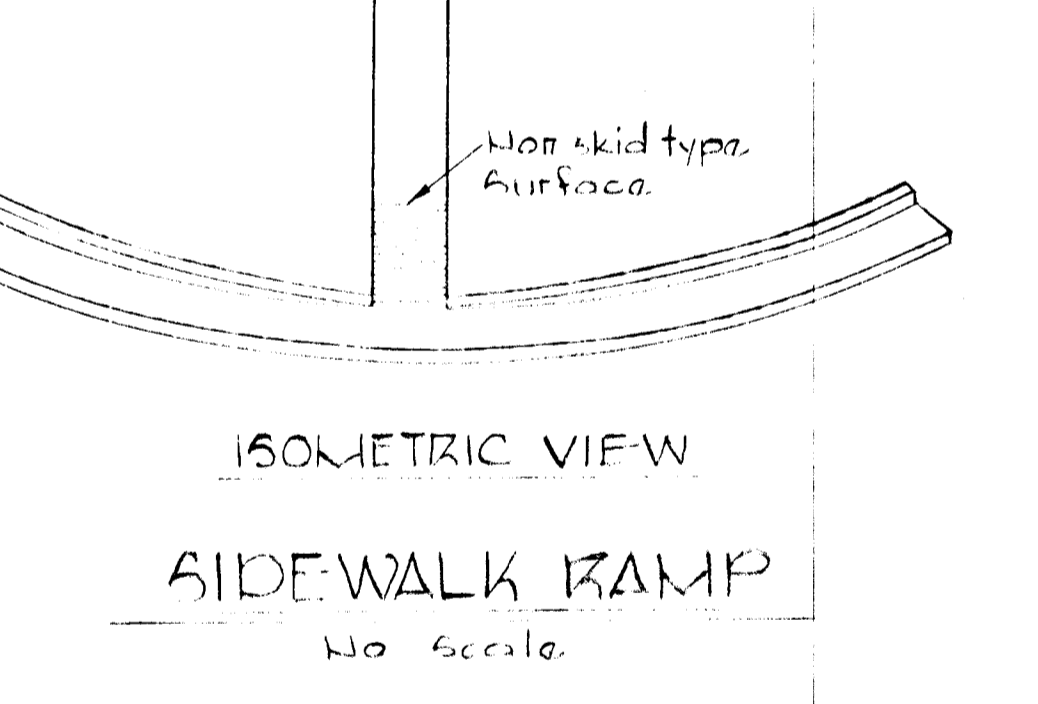
CURB GUTTER TRANSITION DETAIL

DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING
 OFFICE OF THE CHIEF ENGINEER
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

* Granular Base Alternates may be substituted at the option of the Developer.



SECTION "A-A"



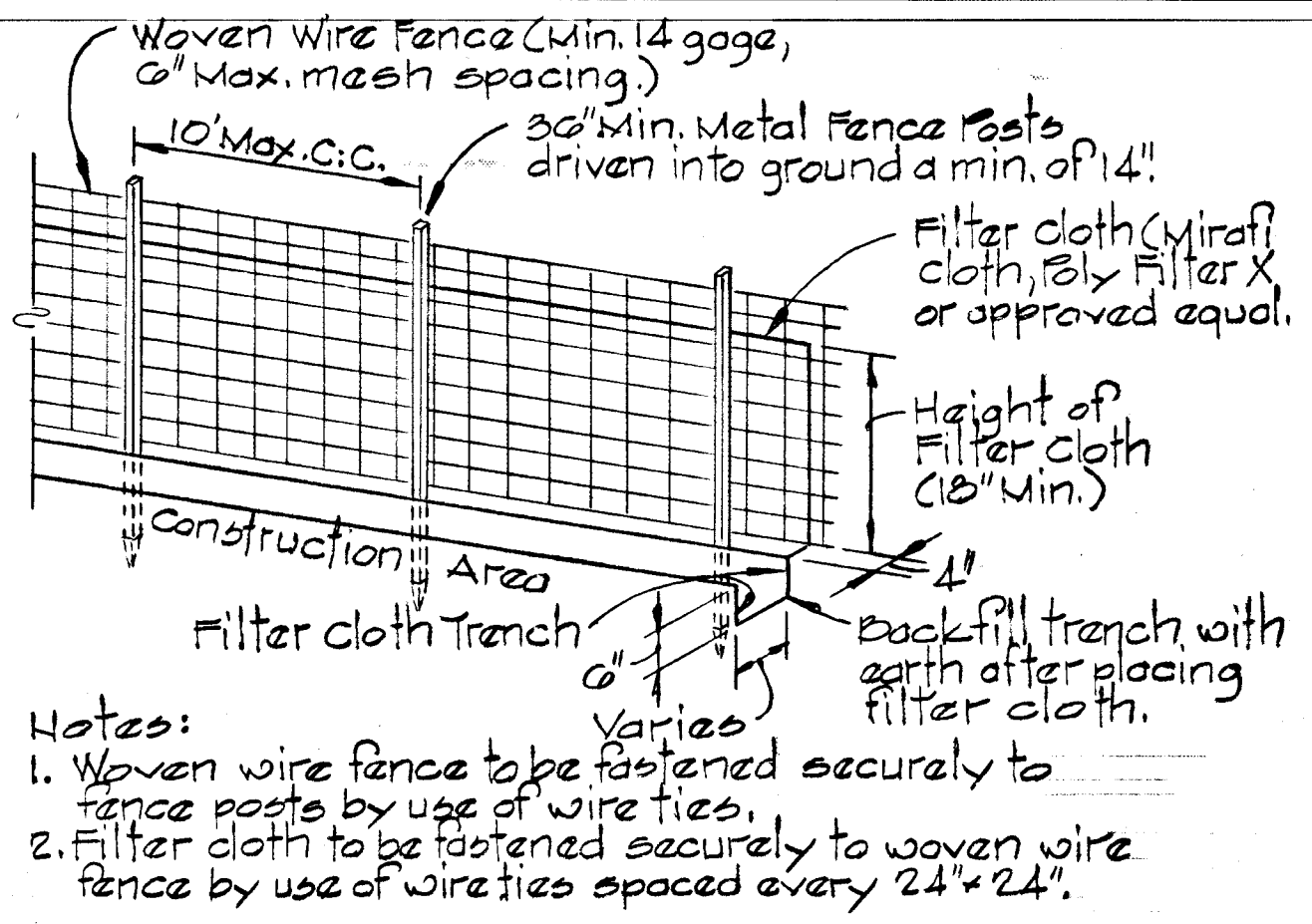
ISOMETRIC VIEW
SIDEWALK RAMP

12/16/81	1	As per DPW & Planning Comments
Revision	Revision	Revision Description
COLUMBIA GTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD HOMES BUILDING CO., INC.		
PROJECT AREA VILLAGE OF KINGS CONTRIVANCE SECTION 2 AREA LOTS B-2 TO B-59 A RESUBDIVISION OF A PORTION OF PARCEL "B-1"		
STANDARD DETAILS		
SCALE: AS SHOWN	DATE: 12-16-81	
WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS 2815 ST. PAUL STREET BALTIMORE, MARYLAND 21202		
 KENNETH A. McCORD Registered Engineer No. 1974		

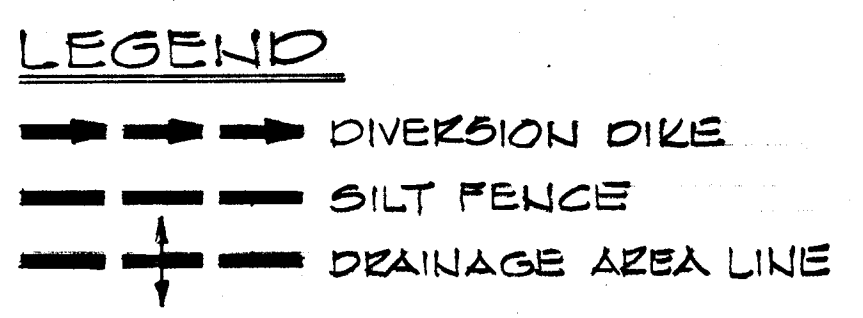


DESIGN DATA SEDIMENT TRAP #3
 DRAINAGE AREA: 2.3 ACRES
 DISTURBED AREA: 2.3 ACRES
 VOLUME REQ'D: 67 x 2.5 = 167.5 C.Y.
 VOLUME AVAILABLE: 108 C.Y.
 DESIGN CAPACITY ELEV: 270.0
 BOTTOM OF TRAP ELEV: 268.0
 STONE FILTER WIDTH: 15.0'

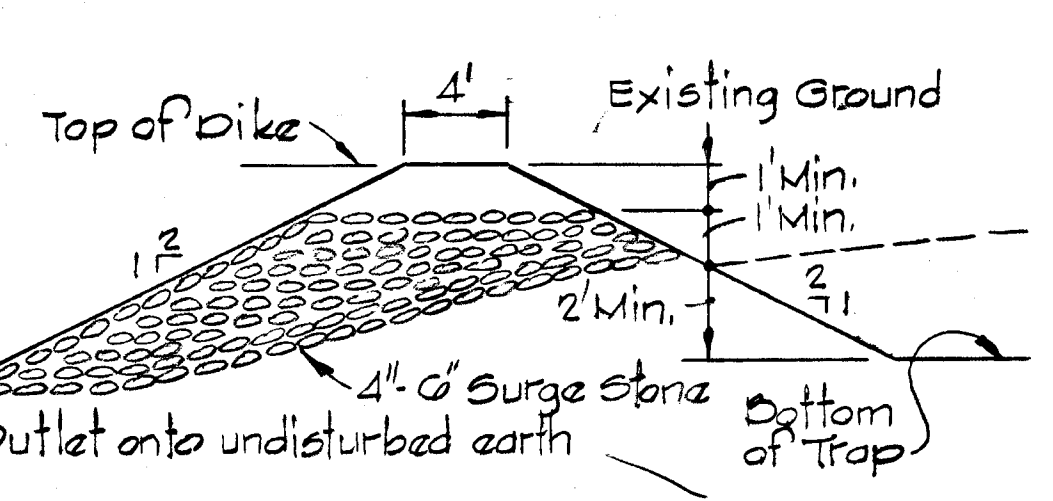
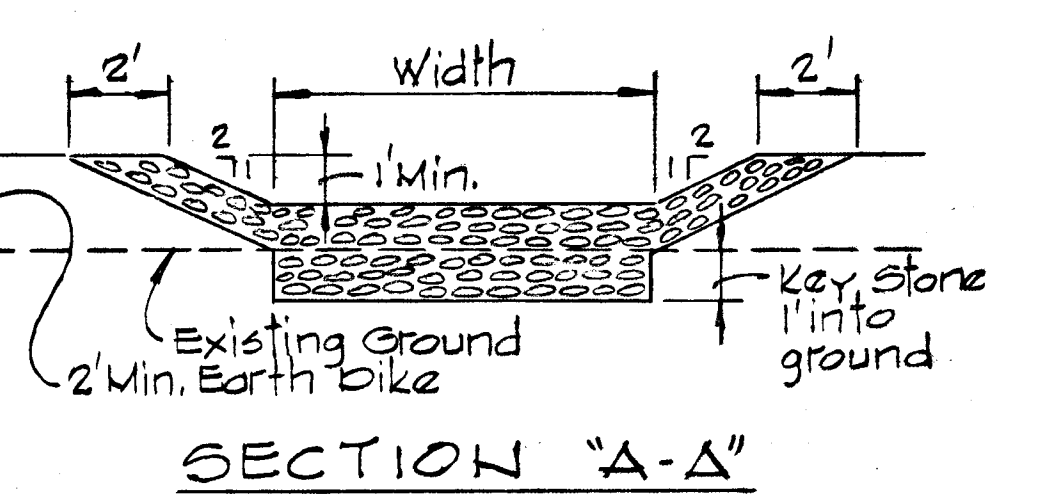
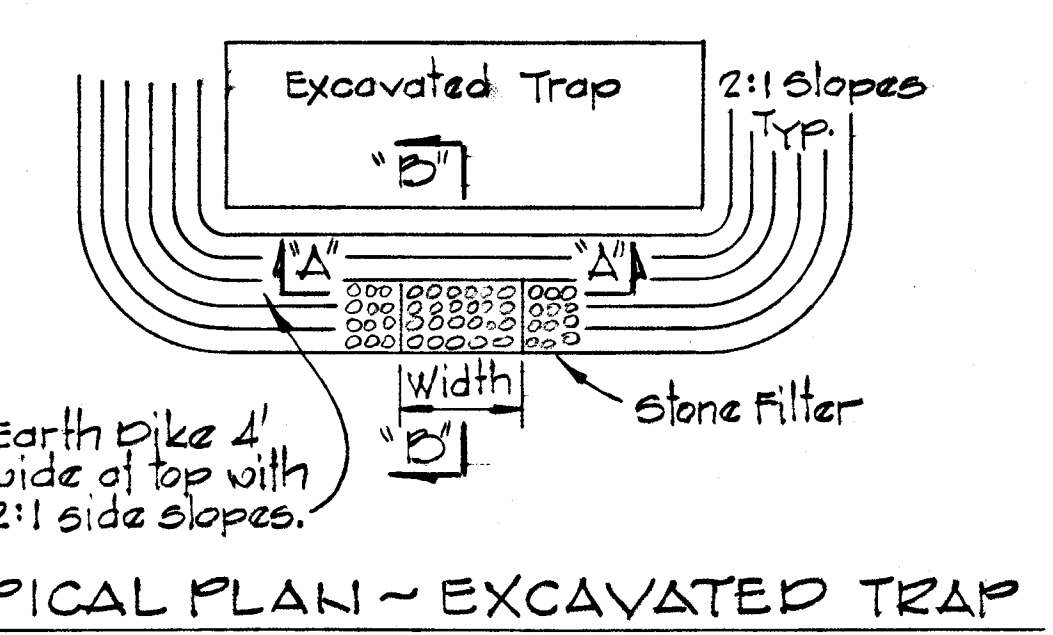
NOTE: TRAP #3 DESIGNED FOR PORTION OF DRAINAGE AREA (NOT SHOWN) IN PHASE 2.



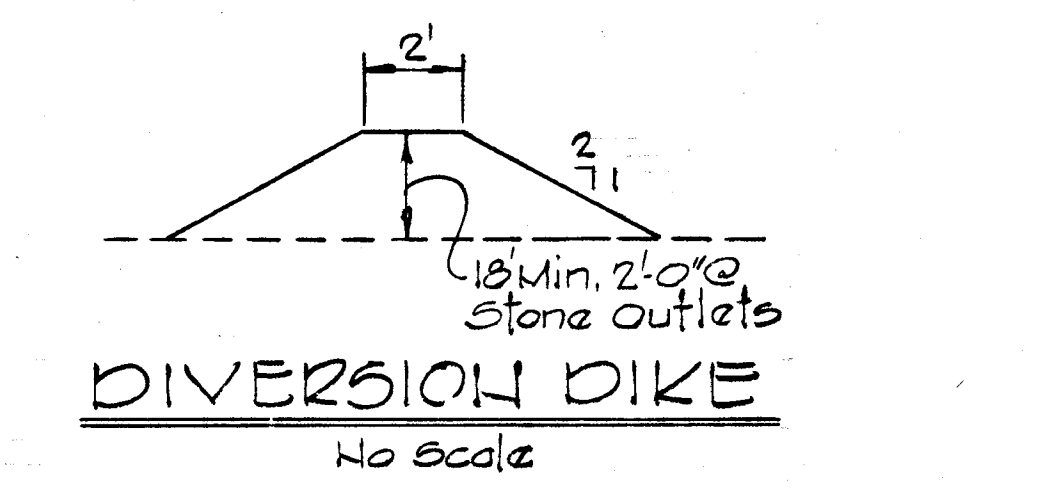
SILT FENCE DETAIL
 No Scale



DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING
 OFFICE OF PLANNING & ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION



SECTION "B-B"
 TRAP AND STONE FILTER DETAIL
 No Scale



SITE ANALYSIS
 AREA OF IMPERVIOUS - 2.5 ACRES
 AREA TO BE VEGETATED - 3.3 ACRES
 AREA UNDISTURBED - 0.7 ACRES

DESIGN DATA SEDIMENT TRAP #1
 DRAINAGE AREA: 2.3 ACRES
 DISTURBED AREA: 2.3 ACRES
 VOLUME REQ'D: 67 x 2.5 = 167.5 C.Y.
 VOLUME AVAILABLE: 108 C.Y.
 DESIGN CAPACITY ELEV: 270.0
 BOTTOM OF TRAP ELEV: 270.0
 STONE FILTER WIDTH: 6' x 2.5 = 13.8'

RESPONSIBLE PERSONNEL CERTIFICATION
 I hereby certify that any responsible personnel involved in the construction project will have a certificate of attendance of a Department of Natural Resources approved training program for the control of Sediment and Erosion before beginning the project!

LEE D. ROSENBERG 11-6-81 DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS

JAMES M. HAZEL 12-21-81 DATE

U.S. SOIL CONSERVATION SERVICE

Rev. Date	Rev. No.	Revision Description
12/16/81	1	As per DPW & Planning Comments

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD HOMES BUILDING CO., INC.

PROJECT AREA
 VILLAGE OF KINGS CONTINGENCE SECTION 3 AREA 1 LOTS D-2 THRU D-59 A RESUBDIVISION OF A PORTION OF PARCEL D-1

PROJECT TITLE
 SEDIMENT CONTROL PLAN AND DETAILS

SCALE: AS SHOWN DATE:

WHITMAN, REQUAZDT AND ASSOCIATES ENGINEERS
 2315 ST. PAUL STREET BALTIMORE, MARYLAND 21218

Kenneth A. McCord
 Registered Engineer No. 1974

CERTIFICATION BY THE DEVELOPER
 I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL, AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

LEE D. ROSENBERG 11-6-81 DATE

CERTIFICATION BY THE ENGINEER
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Kenneth A. McCord 11-6-81 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: [Signature] 12-21-81 DATE
 HOWARD S.C.D.

SEDIMENT CONTROL NOTES

1. See "Sequence of Construction" this sheet.
2. The Sediment Control measures shall be constructed as shown on these drawings.
3. All diversion dikes shall be seeded as specified in notes 4 and 5. All other surfaces to be permanently seeded. See Specifications this sheet.
4. The diversion dikes shall be hydroseeded as follows:
 - a. Ground Limestone (50#/1000#)
 - b. Fertilizer 10-10-10 (25#/1000#)
 - c. Seed Italian Rye Grass (40#/Acre)
5. Mulch with straw at the rate of 30#/1000# or one ton/acre. Anchor with asphalt at the rate of 480 gallons/acre.

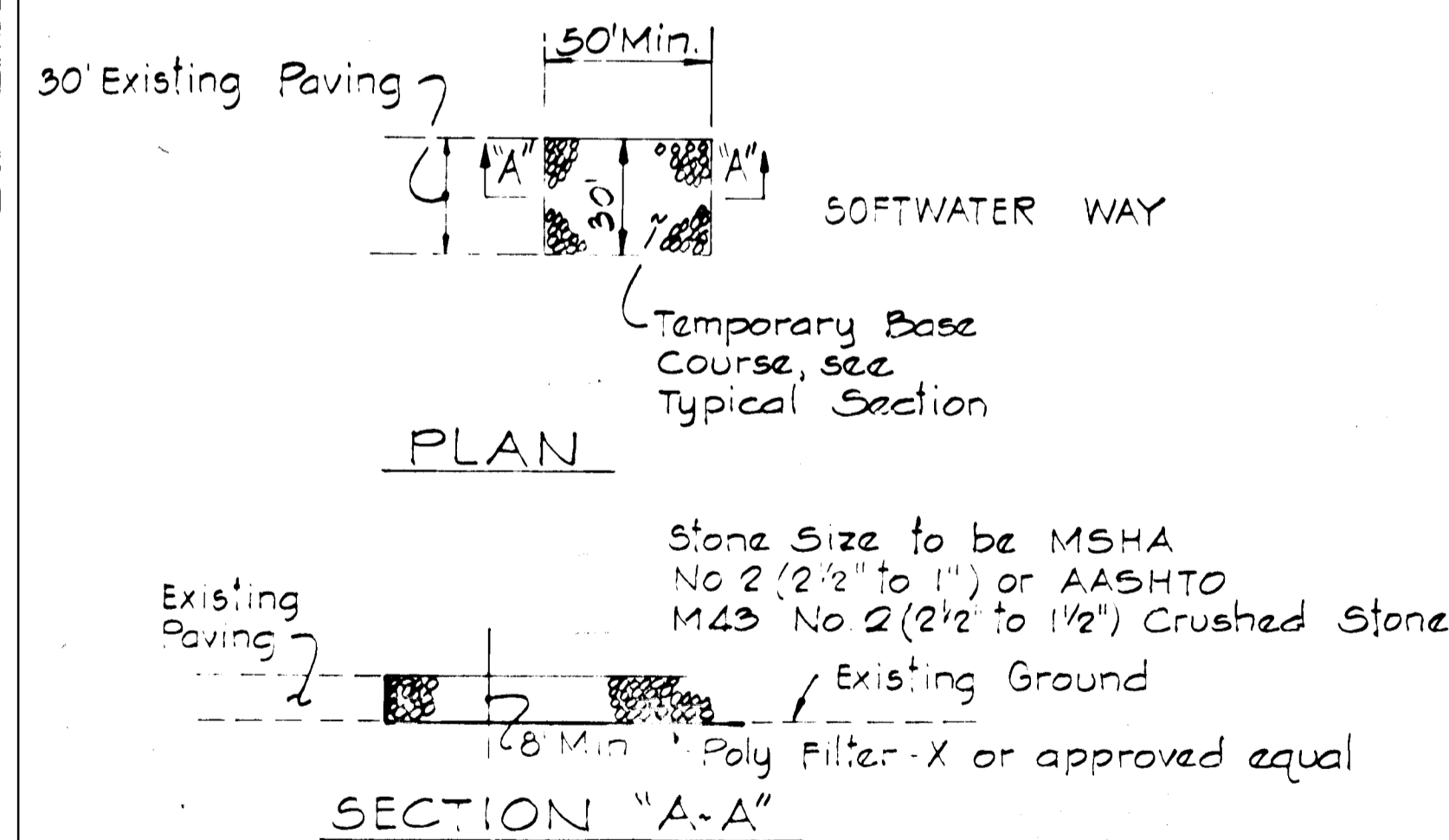
PERMANENT SEEDING

Lime - 2 tons/acre agricultural ground limestone
 Fertilizer - 1000#/acre (10-10-10)
 Seeding - 100#/acre of the following:
 20% Kentucky Blue Grass, 20% Marion Blue Grass, 55% Creeping Red Fescue, 5% Redtop
 Mulch Required - Mulch area with straw at 75#/1000# or 1.5 tons/acre. Anchor with asphalt at the rate of 480 gallons/acre. Stabilization of slopes steeper than 3:1 shall be planted with crownvetch at 15#/acre or 0.34#/1000# and Kentucky 3:1 Tall Fescue at 40#/acre or 1#/1000#

SEQUENCE OF CONSTRUCTION

1. Obtain Grading Permit.
2. Construct "Stabilized Construction Entrance" on Softwater Way at Clocktower Lane.
3. Clear and grub limits of construction.
4. Construct perimeter Diversion Dikes, Silt Fences and Sediment Traps 1, 2 and 3.
5. Stabilize Diversion Dikes and Sediment Trap embankments with temporary seeding, see specifications.
6. Strip limits of construction.
7. Rough grade limits of construction.
8. Construct storm drain systems.
9. Construct utilities, housing curb and gutter and streets.
10. Fine grade and construct sidewalks, etc.
11. Stabilize all disturbed areas with permanent seeding, see specifications.
12. Flush storm drain systems at Sediment Traps 1 and 2.
13. Remove Diversion Dikes, Silt Fences and Sediment Traps 1 and 2 after grass is established in the contributing drainage areas. Stabilize "Sediment Trap Removal Area" with permanent seeding, see specifications.
14. Sediment Trap 3 shall remain in place.

DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering
 OFFICE OF PLANNING AND ZONING
 Chief, Division of Land Development and Zoning Administration
 12-21-81 DATE



STABILIZED CONSTRUCTION ENTRANCE DETAIL

No Scale

CERTIFICATION BY THE DEVELOPER
 "I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."
 Lee B. Rosenberg
 11-6-81 DATE

CERTIFICATION BY THE ENGINEER
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
 Kenneth A. McCord
 11-5-81 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: [Signature]
 HOWARD S.C.D. DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
 James M. Helms
 11-21-81 DATE
 U.S. SOIL CONSERVATION SERVICE

RESPONSIBLE PERSONNEL CERTIFICATION
 "I hereby certify that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of Natural Resources approved training program for the control of sediment and erosion prior to beginning the project."
 Lee B. Rosenberg
 11-6-81 DATE

Rev. Date	Rev. No.	Revision Description
12/16/81	1	As per DPW & Planning Comments

COLUMBIA 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD HOMES BUILDING CO., INC.

PROJECT AREA
 VILLAGE OF KINGS CONTRIVANCE SECTION 3 AREA 1 LOTS B-2 THRU B-59 A RESUBDIVISION OF A PORTION OF PARCEL B-1

PROJECT TITLE
 SEDIMENT CONTROL NOTES AND DETAILS

SCALE: AS SHOWN DATE:

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS
 2315 ST. PAUL STREET BALTIMORE, MARYLAND 21218

[Signature]
 KENNETH A. MCCORD
 Registered Engineer No. 1074